

**T-Mobile's Justification Statement to Accompany
Applications for a Special Exception Permit and Commission Permit
to Install a new Telecommunications Facility to be located at the
BAHA'I CENTER, 21415 Cardinal Glen Circle, Sterling, VA 20164 (WAN463)**

Applicant: T-Mobile Northeast, LLC
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T-Mobile Site # WAN463 –Baha'i Center
Property Owner: Spiritual Assembly Baha'i Loudon
Tax ID # (PIN): 013-25-8465-000
Tax Map/Parcel: /81/G/1////E/
Zoning Designation: R-4
District: Sugarland
Acreage: 2.30

Pursuant to Section 15.2-2232 of the Code of Virginia, T-Mobile Northeast, LLC, ("T-Mobile"), by and through their agent/counsel, Saul Ewing, LLP hereby requests a determination that the proposed wireless telecommunication application described herein is in substantial accordance with the Loudoun County Revised 1993 Zoning Ordinance ("Zoning Ordinance") and the Loudoun County Comprehensive Plan. We appreciate your time and consideration in review of this application for Special Exception and Commission Permit.

Description of Proposed Use:

T-Mobile seeks to collocate six (6) telecommunication antennas inside a proposed concealment canister and two (2) equipment cabinets on the roof of the Baha'i Center, located at 21415 Cardinal Glen Circle in Sterling. The Baha'i Center is an irregularly shaped, 3 story building with differentiating rooftop heights. It is approximately 35 feet in height and terminates in a series of flat roofs with parapet walls. The proposed telecommunication antennas will be located on the upper roof of the building inside a proposed concealment canister with an approximate antenna centerline of 43 feet. In addition to the antennas, T-Mobile will install two ancillary equipment cabinets on a 10' x 18' platform located on the roof, which will be screened by a brick wall.

The facility will operate automatically and will not require personnel or hours of attendance. It will operate twenty-four (24) hours a day, three hundred and sixty-five days a year. Maintenance personnel will visit the site occasionally for repairs or modifications to the facility. The proposed facility is subject to the standards of Section 5-618. The proposed facility will comply with the standards set forth in Section 5-618 as well as the general special exception standards of Section 6-1310.

The Site Selection Process:

This facility is sought to fill a much-needed gap in wireless coverage along Route 7 and to provide coverage in the surrounding neighborhoods. T-Mobile conducted a thorough review of the area for existing structures with sufficient height to meet the enhanced coverage needs of its customers in the area. The proposed facility is a vital component of T-Mobile's area-wide wireless telecommunications network. T-Mobile proposes to make use of an existing structure to eliminate the need for a new telecommunications tower in this search area and to minimize the visual impact of the project on surrounding property owners. This site is strategically superior to other sites in the area and it makes use of an existing structure, which is stated goal of the Zoning Ordinance and Strategic Land Use Plan for Telecommunications Facilities. T-Mobile's customers currently benefit from existing sites to the north, east, south and west of this proposed site (as show on the attached propagation coverage maps). In fact the proposed site sits nearly right in the middle of the above mentioned sites. In hopes of avoiding requesting a new structure T-Mobile did ask Loudoun County to allow it to attach its antennas to an existing 35 foot rooftop at Baha'i Center in Sterling.

Telecommunications carriers must locate antenna sites according to a network design within relatively limited geographic parameters in order to provide uninterrupted coverage. When carriers cannot locate a site within these geographic parameters, network users will pass through an area where the lost signal results in interrupted or "dropped" calls. This poses a significant safety problem, both from the standpoint of lack of coverage in emergencies and because an interrupted call may mean a dangerous distraction to drivers.

This site offers both an excellent land-use and visual solution to T-Mobile's coverage objective within the narrow placement parameters of this particular search area. Utilizing a property with a non-residential or institutional use, the Baha'i Center church will bring coverage to the surrounding residential neighborhood and helps meet the goals of Loudoun County Zoning Ordinance. T-Mobile's analysis of its network indicates that there are significant coverage problems along Route 7 in the Cardinal Glen area in this part of Loudoun County. T-Mobile is making use of this existing structure to avoid constructing a new monopole or tower. Consequently, this facility will be the least disruptive means to provide the needed coverage in the area.

Code Compliance:

Below, is an outline of the relevant provisions from the Loudoun County Zoning Ordinance followed by a brief statement of T-Mobile's compliance and adherence to the requirements in the provisions.

5-618 Telecommunications Use And/Or Structures. The following performance standards shall be applied to telecommunication uses and/or structures.

(A) **Antennas.** Structure mounted and roof top mounted antennas and related unmanned equipment may be developed subject to the performance standards below to the extent permitted by right in the district use lists.

- (1) Antennas and related unmanned equipment are permitted on an existing telecommunications monopole, telecommunications tower, or structure forty (40) feet or greater in height in all zoning districts subject to the performance standards outlined in this section. *T-Mobile is proposing antennas on a structure that is thirty-five (35) feet in height. T-Mobile requests a minor special exception approval to allow the proposed antennas even though the building falls five (5) feet short of the forty (40) foot requirement.*

- (2) Notwithstanding the height requirements in Section 5-618(A)(1), antennas and related unmanned equipment are permitted in all zoning districts on buildings and structures owned or controlled by a public use or fire and/or rescue company. *N/A*
- (3) Such antennas and related equipment may exceed the maximum building height limitations, provided the use is in accordance with the development criteria herein. *The construction and use of the proposed facility shall be in accordance with these criteria.*
- (4) Omnidirectional or whip antennas shall not exceed twenty (20) feet in height or seven (7) inches in diameter and shall be of a material or color which matches the exterior of the building or structure. *N/A*
- (5) Directional or panel antennas shall not exceed ten (10) feet in height or two (2) feet in width and shall be of a material or color which matches the exterior of the building or structure. *The proposed antennas will measure less than ten (10) feet in height and two (2) feet in width. T-Mobile will install antennas that measure 59" in height, 11.9" in width, and 6.3" in depth. The antennas and will be concealed inside a proposed canister.*
- (6) Satellite and microwave dish antennas shall not exceed six (6) feet in diameter and shall be screened from public view. *N/A*
- (7) No commercial advertising shall be allowed on any antenna. *No advertising shall be located on the antennas or roof.*
- (8) Signals or lights or illumination shall not be permitted on any antenna, unless required by the Federal Communications Commission (FCC), the Federal Aviation Administration (FAA), State or Federal authorities, or the County. *T-Mobile will comply with this requirements. In fact, T-Mobile does not propose any lighting, illumination, or signals and this installation will not require any lighting, illumination or signals.*
- (9) The related unmanned equipment structure(s) shall not contain more than 500 square feet of total gross floor area per user on each site. Structures shall not exceed 12 feet in height. If located within the structure upon which the antennas are mounted, they may be located in the areas which are excluded from the determination of net floor area without changing the exclusion of those areas from the calculation of the density of the structure. The structure shall be of a material or color which matches the exterior of the building or structure. *T-Mobile will install two (2) equipment cabinets that will blend with the existing rooftop and will not exceed 12 foot height limitation. The square footage for the equipment platform is 180 square feet.*
- (10) If the equipment structure is located on the roof of a building, the area of the equipment and structures shall not occupy more than twenty-five (25) percent of the roof area. *T-Mobile's equipment platform will occupy only 5% of the entire roof area.*

(B)(4) Monopoles, Additional Submission Requirements. The following additional information shall be submitted by applicants for monopoles required to be approved by special exception.

- (a) The applicant shall provide photoimagery or other visual simulation of the proposed telecommunications monopole shown with the existing conditions of the site. This simulation shall be provided from a minimum of three (3) perspectives. The applicant shall address how the facility can be designed to mitigate the visual impact on area residents, facilities, and roads.

Three photosimulations are attached and they highlight the visual impact, or lack thereof, of the white concealment canister located on the rooftop. As you will see, this structure is not dissimilar to existing rooftop installations. Also, and as noted elsewhere, this installation would be by right if the actual building were 5' taller. This point is made merely to highlight that the visual impact of a concealment canister co-located onto a roof has a minimal visual impact and is actually preferred to new towers.

- (b) Except for areas where permitted by right, an applicant for a new commercial public telecommunication monopole shall demonstrate that location on an existing telecommunications facility or structure greater than 40 feet in height is not feasible. The applicant shall evaluate telecommunications facilities and structures greater than 40 feet in height within a one (1) mile radius of the proposed facility within the Eastern Loudoun Urban Growth Area. Elsewhere in the County, the applicant shall evaluate these locations within a two (2) mile radius of the proposed facility. Technological, physical, and economic constraints may be considered in determining infeasibility.

This section is not applicable for the most part because T-Mobile seeks to co-locate onto a 35' building that is situated in the middle of its search area, and in an area where there are no viable buildings over 40'

- (c) In addition to those entitled to notice under the provisions of Section 6-600 of this Ordinance, all owner(s), or their agent(s), of all properties abutting or immediately and diagonally across the street or road from those properties whose owners are entitled to notice under Section 6-600, shall be provided with the same written notice. The applicant is also encouraged to meet with community and homeowners association groups in the area.

T-Mobile will comply with this requirement.

- (d) Telecommunications monopoles permissible by special exception pursuant to Section 5-618(B)(2)(d) shall not be subject to the lot requirements,

building requirements, and open space requirements, if applicable, of the zoning district in which they are located. *Site plan attached.*

Section 6-1310 -- Issues for Consideration for all Special Exception Uses

In considering a special exception application, the following factors shall be given reasonable consideration. When a special exception or minor special exception application includes a request for approval of temporary special events, the following factors shall be reasonably considered taking into account the proposed special events as well as the principal special exception use. The applicant shall address all the following in its statement of justification or special exception plat unless not applicable, in addition to any other standards imposed by this Ordinance:

- (A) Whether the proposed special exception is consistent with the Comprehensive Plan. *T-Mobile's proposed special exception is in substantial accordance with the Comprehensive Plan and the Strategic Land Use Plan for Telecommunications Facilities. The proposed facility will be sited on a church property in a R-4 district, to be located on a church property. The requested use is a permitted use under §3-402(Q), for a rooftop over 40' tall. While this rooftop just falls short of the 40' limitation for a permitted use, it is a preferred siting solution to a brand new monopole facility.*

Per Chapter 3 of the Comprehensive plan, the demand for local services has doubled in Loudoun County over the past decade due to increasing growth in population. Correspondingly, improvement of the T-Mobile network will result in a higher quality service for area residents, businesses and visitors. This location will provide improved coverage along the Cascades area of Sterling, including Route 7 in the Cardinal Glen area and the surrounding neighborhoods. In accordance with Chapter 7 of the Comprehensive Plan, the requested facility will contribute to the County's vision for economic development, as the availability of quality communications can directly support existing business. Quality wireless telecommunications services can help facilitate Loudoun County's endeavor to maintain a viable economy and communications for emergency situations. The canister conceals the antennas and helps to preserve the character and scenic quality of the Cardinal Glen area for citizens and visitors.

- (B) Whether the proposed special exception will adequately provide for safety from fire hazards and have effective measures of fire control. *The proposed facility will be consistent with all applicable requirements, including building and fire code. The proposed facility will not present safety or fire hazards.*
- (C) Whether the level and impact of any noise emanating from the site, including that generated by the proposed use, negatively impacts the uses in the immediate area. *The proposed facility is an unmanned facility that will not produce material noise, traffic, waste, or otherwise negatively impact the surrounding uses. The site will be visited approximately once per month by a technician for regular maintenance. As stated previously, this proposal will make use of an existing structure so that there will be little to no adverse visual impact on surrounding properties.*

- (D) Whether the glare or light that may be generated by the proposed use negatively impacts uses in the immediate area. *There will be no new or additional glare or light generated by the proposed use.*
- (E) Whether the proposed use is compatible with other existing or proposed uses in the neighborhood, and adjacent parcels. *From an aesthetic perspective, the proposed concealment canister antenna design is highly consistent with the unique architectural character of the existing building and adjacent parcels. Also, from a practical standpoint the proposed use provides a service to area residents, workers, tourists and commuters.*
- (F) Whether sufficient existing or proposed landscaping, screening and buffering on the site and in the neighborhood to adequately screen surrounding uses. *The proposed location is a rooftop site and does have some existing landscaping, screening and buffering on and around the site. By utilizing an existing rooftop and painting the antennas and equipment to match, T-Mobile is mitigating the visual impact and screening of the facility.*
- (G) Whether the proposed special exception will result in the preservation of any topographic or physical, natural, scenic, archaeological or historic feature of significant importance. *The requested facility will have no effect on any such feature.*
- (H) Whether the proposed special exception will damage existing animal habitat, vegetation, water quality (including groundwater) or air quality. *The requested facility will not damage or generate adverse impact on any animal habitat, vegetation, and water or air quality.*
- (I) Whether the proposed special exception at the specified location will contribute to or promote the welfare or convenience of the public. *The proposed special exception at this location will contribute to and promote the welfare and convenience of the public. The requested facility will improve area wireless coverage for essential, non-essential and emergency communications. Additionally, quality wireless service offers support to a viable economy.*
- (J) Whether the traffic expected to be generated by the proposed use will be adequately and safely served by roads, pedestrian connections and other transportation services. *The proposed use will be an unmanned facility; therefore, the traffic patterns will not be adversely affected. Once the facility is constructed, normal traffic to the site will include approximately one visit per month by a service technician for regular maintenance.*
- (K) Whether, in the case of existing structures proposed to be converted to uses requiring a special exception, the structures meet all code requirements of Loudoun County. *T-Mobile requests a special exception approval to allow the proposed antennas to be located on a building/structure less than 40 feet height. Such special exception may be modified in accordance with the provisions of Section 6-1300.*
- (L) Whether the proposed special exception will be served adequately by essential public facilities and services. *The proposed use will not generate demand for*

essential public facilities and services as it is an unmanned facility, not intended for human habitation.

- (M) The effect of the proposed special exception on groundwater supply. *The proposed special exception will have no effect on the groundwater supply.*
- (N) Whether the proposed use will affect the structural capacity of the soils. *The facility will have no affect on the structural capacity of the soil.*
- (O) Whether the proposed use will negatively impact orderly and safe road development and transportation. *The proposed use will have no impact on orderly and safe road development and transportation. Once the facility is constructed, normal traffic will include approximately one visit per month by a service technician for regular maintenance.*
- (P) Whether the proposed special exception use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan. *The proposed special exception may generate jobs during the construction phase as well as ongoing employment for maintenance of the facility. By providing wireless telecommunications service in the area, the proposed special exception can advance competition while promoting communications which is essential for business growth and development.*
- (Q) Whether the proposed special exception considers the needs of agriculture, industry, and businesses in future growth. *The proposed special exception does consider these needs and can help to advance future growth in these areas. Communications is essential for future growth and development of agriculture, industry and business. The requested special exception can directly impact those needs by providing a high quality, reliable communications service.*
- (R) Whether adequate on and off-site infrastructure is available. *Adequate on and off site infrastructure is available for the successful integration of the requested facility into the T-Mobile wireless telecommunications network.*
- (S) Any anticipated odors which may be generated by the uses on site, and which may negatively impact adjacent uses. *The proposed use will not generate any odor.*
- (T) Whether the proposed special exception uses sufficient measure to mitigate the impact of construction traffic on existing neighborhoods and school areas. *The proposed construction will take place on site. An existing parking lot extends onto the property. There is no expected impact to neighborhoods, school areas or regular traffic flow to be caused by construction traffic.*